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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/752,651

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Richard C. Fuksa

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EXAMINER

SCHNEIDER, CRAIG M

ART UNIT

PAPER NUMBER

3753

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/752,651	Applicant(s) FUKSA ET AL.	
	Examiner Craig M. Schneider	Art Unit 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2006.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1/7/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 2/17/2006 have been fully considered but they are not persuasive. Applicant is arguing that the Miller invention is for a dowel and joining two pieces together. The applicant does not positively recite that the pin insert is for a valve and is placed into a valve plate. The dowel of Miller can be used as a valve pin insert that would be placed into a valve plate. The applicant is further arguing that the dowel of Miller does not shear as it is being inserted. The concave tooth area of 17 as seen in Figure 4B clearly shears the element that the dowel is inserted into.

Claim Objections

2. Claim 1 is objected to because of the following informalities: Line 7 "pin in inserted" should be --pin is inserted--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Miller (6,267,527).

Miller discloses a dowel (10) that has a lower shank at one end of the body and an upper shank adjacent to the lower shank as seen in Figure 4B col. 3, lines 23-25), the lower shank being of a first diameter and the upper shank being of a second

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diameter, the first diameter being less than the second diameter and wherein between the lower shank and the upper shank of the body an undercut shoulder forms a recess opening in the direction toward the lower shank, the recess forming a tooth that shears material as the dowel is inserted into a hole as seen in Figure 4B and wherein the valve pin insert has an insert position, wherein when in the insert position, the upper and lower shank are disposed in the valve plate. The diameter of the lower shank is less than the diameter of the hole in the valve plate. The diameter of the hole of the valve plate must be larger than the dowel when the dowel is inside the hole.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miller as applied to claim 1 above, and further in view of Kawaguchi et al. (US 2003/0181560 A1).

Miller discloses all the features of the invention except that the pin is made of PEEK. Kawaguchi et al. discloses the use of PEEK as a corrosion resistant material (page 3, paragraphs 53-55).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the plastic material utilized by Miller for the PEEK material of Kawaguchi et al., in order to make the plastic more chemical resistant.

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7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miller as applied to claim 1 above, and further in view of Malloy et al. (4,146,206).

Miller discloses all the features of the claimed invention except that the valve plate is made of plastic. Malloy et al. disclose the use of PTFE for chemical resistance (col.2, lines 57-62).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the PTFE as taught by Malloy et al. onto Miller, to make the material that the dowel is being inserted into more resistant to chemicals.

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miller as applied to claim 1 above, and further in view of Runge (4,182,217).

Miller discloses all the features of the claimed invention except that the undercut-shoulder is molded into the pin, Runge discloses that the dowel is molded (col. 2, lines 58-68 onto col. 3, lines 1-2 and in claim 4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to mold the entire pin of Miller as taught by Runge which would include the undercut shoulder, in order to decrease manufacturing cost.

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miller as applied to claim 1 above, and further in view of Kindt (2,221,141).

Miller discloses all the features of the claimed invention except that the undercut should is machined into the pin. Kindt discloses machining of a portion of the dowel below a flange (col. 2, lines 4-8).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the undercut shoulder of Miller machined as is the area below the flange of Kindt, in order to make sure that the dowel of Miller is in coaxial alignment of the bored recess in the work.

10. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miller as applied to claim 1 above, and further in view of Hinkel (6,435,758).

Miller discloses all the features of the claimed invention except that the undercut shoulder extends to a depth beneath the surface of the lower shank. Hinkel discloses the use of an undercut shoulder extending to a depth beneath the surface of the lower shank as seen in Figure 2b(col. 4, lines 47-67 onto col.5, lines 1-53).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the undercut shoulder of Hinkel onto the dowel of Miller, in order to create a positive-locking manner.

11. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miller as applied to claim 1 above, and further in view of Applicant's Exhibit A.

Miller discloses all the features of the claimed invention except that the pin further comprises a stud extending axially outwardly from the body. Applicant's exhibit A discloses the use of a stud at the end of the dowel as shown in Figure 1.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the stud of Applicant's Exhibit A onto the dowel of Miller, in order to attach items to the end of the dowel.

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12. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wise (3,621,868) in view of Miller.

Wise discloses a valve pin insert (32) located in a valve plate (26) as seen in Figures 3 and 4 (col. 2, lines 10-12). Wise does not disclose a valve pin insert wherein the body has a lower shank at one end of the body and an upper shank adjacent to the lower shank, the lower shank being of a first diameter and the upper shank being of a second diameter, the first diameter being less than the second diameter and wherein between the lower shank and the upper shank of the body an undercut shoulder forms a recess opening in the direction toward the lower shank, the recess forming a tooth that shears material of the valve plate as the pin is inserted into a hole in the valve plate and wherein the valve pin insert has an insert position, wherein when in the insert position, the upper and lower shank are disposed in the valve plate. Miller discloses a dowel (10) that has a lower shank at one end of the body and an upper shank adjacent to the lower shank as seen in Figure 4B col. 3, lines 23-25), the lower shank being of a first diameter and the upper shank being of a second diameter, the first diameter being less than the second diameter and wherein between the lower shank and the upper shank of the body an undercut shoulder forms a recess opening in the direction toward the lower shank, the recess forming a tooth that shears material as the dowel is inserted into a hole as seen in Figure 4B and wherein the valve pin insert has an insert position, wherein when in the insert position, the upper and lower shank are disposed in the valve plate. The diameter of the lower shank is less than the diameter of the hole in the

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valve plate. The diameter of the hole of the valve plate must be larger than the dowel when the dowel is inside the hole.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the dowel construction of Miller onto the valve pin of Wise, in order to have a quick and easy connection (abstract of Miller).

13. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wise and Miller as applied to claim 1 above, and further in view of Kawaguchi et al..

Wise and Miller disclose all the features of the invention except that the pin is made of PEEK. Kawaguchi et al. discloses the use of PEEK as a corrosion resistant material (page 3, paragraphs 53-55).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the plastic material utilized by Wise and Miller for the PEEK material of Kawaguchi et al., in order to make the plastic more chemical resistant.

14. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wise and Miller as applied to claim 1 above, and further in view of Malloy et al..

Wise and Miller disclose all the features of the claimed invention except that the valve plate is made of plastic. Malloy et al. disclose the use of PTFE for chemical resistance (col.2, lines 57-62).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the PTFE as taught by Malloy et al. onto Wise and Miller, to make the material that the dowel is being inserted into more resistant to chemicals.

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15. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wise and Miller as applied to claim 1 above, and further in view of Runge.

Wise and Miller disclose all the features of the claimed invention except that the undercut- shoulder is molded into the pin, Runge discloses that the dowel is molded (col. 2, lines 58-68 onto col. 3, lines 1-2 and in claim 4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to mold the entire pin of Wise and Miller as taught by Runge which would include the undercut shoulder, in order to decrease manufacturing cost.

16. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wise and Miller as applied to claim 1 above, and further in view of Kindt.

Wise and Miller disclose all the features of the claimed invention except that the undercut should is machined into the pin. Kindt discloses machining of a portion of the dowel below a flange (col. 2, lines 4-8).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the undercut shoulder of Wise and Miller machined as is the area below the flange of Kindt, in order to make sure that the valve pin inser of Wise and Miller is in coaxial alignment of the bored recess in the work.

17. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wise and Miller as applied to claim 1 above, and further in view of Hinkel.

Wise and Miller disclose all the features of the claimed invention except that the undercut shoulder extends to a depth beneath the surface of the lower shank. Hinkel

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discloses the use of an undercut shoulder extending to a depth beneath the surface of the lower shank as seen in Figure 2b(col. 4, lines 47-67 onto col.5, lines 1-53).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the undercut shoulder of Hinkel onto the valve pin insert of Wise and Miller, in order to create a positive-locking manner.

18. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wise and Miller as applied to claim 1 above, and further in view of Applicant's Exhibit A.

Wise and Miller disclose all the features of the claimed invention except that the pin further comprises a stud extending axially outwardly from the body. Applicant's exhibit A discloses the use of a stud at the end of the dowel as shown in Figure 1.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the stud of Applicant's Exhibit A onto the pin insert of Wise and Miller, in order to attach items to the end of the pin insert.

Conclusion

19. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig M. Schneider whose telephone number is (571) 272-3607. The examiner can normally be reached on M-F 8:30 -5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Keasel can be reached on (571) 272-4929. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CMS *CMS*
April 14, 2006


Eric Keasel
Primary Examiner
Art Unit 3754